

REMARKS

Claims 1, 4, 5, 7-13 and 15-20 are pending in the present application. Claims 8-13, 15, 18 and 19 are withdrawn. Claims 1, 4, 5, 16 and 17 herein amended. Claims 2, 3, 6 and 14 are herein canceled. No new matter has been presented.

Claim Rejections - 35 U.S.C. § 103

Claims 1-5, 7, 14-16 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over **McCaffrey** (US 2001/0038450) in view of **Ryoji** (Engineering Materials, 1999); and claims 6 and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over **McCaffrey** in view of **Ryoji**, and further in view of **Rapp** (US 6,602,464).

Favorable reconsideration is requested.

(1) Applicants respectfully submit that the invention as recited in the claims is non-obvious over the prior art because the invention as recited in the claims provides unexpected results over the prior art.

The results in Table 4 demonstrate that even though grounding is set in the photometry chamber as taught in McCaffrey, the background value is not suppressed, but that when an anti-static sheet is used, the background value is suppressed.

The Office Action dated February 10, 2009 takes the position that the results in Table 4 do not provide a close comparison with what is taught in McCaffrey. The Office Action states that Table 4 compares the effect of grounding the instrument and the effect of lining anti-static tape inside the measurement chamber, but that McCaffrey discloses lining the inside of the chamber with conducting material. (Office Action, February 10, 2009, page 2.)

However, the device in McCaffrey made of conductive material provides grounding. McCaffrey states that “a sample compartment of known devices must be *made of a conductive material* or some other means must be provided *to drain static charge* from the sample consumable.” (Paragraph 15.) Thus, McCaffrey corresponds to the prior art example in the present specification in which aluminum foil is set at the undersurface, *i.e.*, in Example 3. As pointed out in Paragraph 93 of the present specification, the title of Example 3 is “Influence of Electrification of a Reagent Cartridge and Grounding Effect on the Measurement.” And as explained in Paragraph 94, the aluminum foil provides grounding. The results in the present specification demonstrate unexpected results over the prior art, including McCaffrey, and thus, the present invention is non-obvious over the prior art.

In the Amendment dated April 23, 2009 Applicants pointed out that the present invention provides unexpected results as noted above. The Office Action dated May 29, 2009 did not consider this argument. Applicants respectfully request consideration of the above argument.

(2) Applicants respectfully submit that McCaffrey in view of Ryoji does not teach or suggest “making an atmosphere surrounding a reaction vessel and/or a reaction vessel in a photometry chamber electrically constant” as recited in amended claim 1.

McCaffrey discloses a method for detecting light produced by chemiluminescence and an ATP-chemiluminescence detection device. The device includes photodetecting transducers for detecting luminescence. The device is made of a conductive material or “some other means” is provided for draining static charge. (Paragraph 15.)

The Office Action acknowledged that McCaffrey does not disclose what the "some other means" are. (Office Action, page 2.) The Office Action cited Ryoji for teaching static electricity removal. (Office Action, page 2.) Ryoji discloses, in the title, static electricity removal and static electricity elimination materials, and persistent static elimination ABS resins "Novally E series." Thus it is the position of the Office Action that the method in McCaffrey, which teaches a need for static elimination, modified to include static elimination materials as taught in Ryoji would provide an electrically constant chamber because there would be no static. (Office Action, page 4.)

However, even if static charge can be drained from the chamber, for instance, by ground, an atmosphere in the chamber is not necessarily electrically constant. Even when static electricity can be removed (drained) from the photometry chamber by using grounding, the atmosphere surrounding a reaction vessel in the photometry chamber cannot be electrically constant.

For instance, when the grounding is connected with the photometry chamber, the static electricity flows out from the charged photometry chamber through the grounding. Therefore, the static electricity can be removed from the charged photometry chamber or charged reaction vessel in the photometry chamber. However, electric charge in an atmosphere surrounding a reaction vessel cannot flow out through the grounding. Therefore, the grounding cannot make the atmosphere surrounding the reaction vessel in the photometry chamber electrically constant. (See specification, paragraphs 3, 4 and 93-96.)

Moreover, even when the measurement is performed using the photometry chamber, wherein the photometry chamber is made of Novalloy E and it is connected to the grounding, the Novalloy E cannot make an atmosphere surrounding a reaction vessel and/or an atmosphere surrounding the reaction vessel in the photometry chamber electrically constant. Ryoji discloses the use of Novalloy E, which is a "Persistent static elimination ABS resin." (See Ryoji, Title.) Additionally, according to Ryoji, Novalloy E is electrically conductive material, just like aluminum. (See the complete English translation of Ryoji submitted with the concurrently filed Information Disclosure Statement, specifically at page 1, lines 18-28; page 2, lines 14-19 and 24-28; page 3, lines 8-15; page 3, line 18 to page 4, line 6; page 5, lines 22-24 and page 6, line 19 to page 7, line 14.)

Therefore, when the photometry chamber or reaction vessel is made with the Novalloy E and according to the disclosure of McCaffrey which states that "Conventionally, a sample compartment of known devices must be made of a conductive material" (paragraph 15), the photometry chamber is conductive.

This conductive photometry chamber is the same as the photometry chamber of which an aluminum foil was set at the undersurface. (Specification, page 38, lines 6-7.) In Example 3 which uses this photometry chamber, when the reagent cartridge becomes electrically charged, the electric charge is removed through the aluminum foil as the grounding. (Specification page 38, lines 16-17.) However, as is clear from Table 4, the background value can not be suppressed even though the electric charge of the reagent cartridge is removed by setting the aluminum foil at the undersurface of the photometry chamber. From this result, it is demonstrated that

electrostatic charge of the reagent cartridge does not affect the increase of background value. That is, it is understood from the result that background value cannot be suppressed even though the grounding is set in the photometry chamber. (Specification, page 39, line 13 to page 40, line 1.)

Thus, even when the measurement is performed using the photometry chamber, wherein the photometry chamber is made of Novalloy E and it is connected to the grounding, the objective of the present invention cannot be accomplished (Background is not able to be reduced.). That is, Novalloy E cannot make an atmosphere surrounding a reaction vessel and/or an atmosphere surrounding the reaction vessel in the photometry chamber electrically constant.

As explained above, even when static electricity is removed from the photometry chamber made of conductive material through the grounding, it is impossible to make an atmosphere surrounding a reaction vessel and/or an atmosphere surrounding the reaction vessel in the photometry chamber electrically constant. Therefore, McCaffrey in view of Ryoji does not teach or suggest all of the elements as recited in claim 14.

(3) Applicants respectfully submit that it would not have been obvious to combine the teachings of McCaffrey and Ryoji.

McCaffrey discloses that “many photodetecting transducers used for the detection of luminescence are very sensitive to static charge.” (McCaffrey, paragraph 15, lines 1-3.) It is known that resin easily charges with electricity. Novalloy E disclosed in Ryoji is made of ABS resin. (Ryoji, Title.) Therefore, one of ordinary skill in the art would not use Novalloy E which is made of resin as a material of the photometry chamber in McCaffrey.

In addition, as is mentioned in McCaffrey, “conventionally, a sample compartment of known devices **must be made of a conductive material.**” (McCaffrey, paragraph 15, lines 1-7.) In general, a photometry chamber is made of metal which is a conductive material, and metal is much more conductive than Novalloy E which is resin. Therefore, one of ordinary skill in the art would not select resin as a material of photometry chamber.

(4) Applicants respectfully submit that amended claim 1 (including the limitations of cancelled claim 6) and claim 17 would not have been obvious over McCaffrey in view of Ryoji and further in view of Rapp because Rapp is in a non-analogous art.

The Office Action acknowledged that McCaffrey in view of Ryoji does not disclose “shutting an opening part of the vessel holding the solution with a sheet, or a method for covering the surface of the solution in the reaction vessel with a substrate insoluble to the solution. (Office Action, page 3.) The Office Action cited Rapp for teaching the use of an oil layer to seal a surface of an aqueous solution.

Rapp discloses treating agricultural animal waste to minimize odorous emissions. (Col. 2, lines 31-39.) The Treatment includes the use of oil and activated carbon applied to the surface of liquid animal waste creating a seal.

The present invention is in the art of spectral measurement and improvement of the accuracy of the measurement in a spectrophotometer. By contrast, Rapp discloses methods of minimizing odorous emissions from agricultural animal waste. The art of treating agricultural waste is not reasonably pertinent to the art of the present invention.

The Office Action appears to take the position that sealing an aqueous surface with oil film is knowledge that is generally available to one of ordinary skill in the art, and that Rapp is merely cited to demonstrate this knowledge. However, according to MPEP § 2141.01(a), “to rely on a reference under 35 U.S.C. § 103, it must be analogous prior art.” As noted above, the art of treating agricultural waste of Rapp is not reasonably pertinent to the art of the present invention, and thus, is not analogous art.

(5) Applicants respectfully submit that amended claims 1 (including the limitations of cancelled claim 6) and claim 17 are non-obvious because it would not have been obvious to one of ordinary skill in the art to combine the teachings of sealing odorous emissions in Rapp with the methods of draining static charge in McCaffrey.

The Office Action stated that McCaffrey discloses the use of “some other means” for draining electric charge and takes the position that it would have been obvious to use the sealing method taught in Rapp. (Office Action, pages 3-4.) However, Rapp merely discloses sealing odorous emissions. Rapp does not teach that the oil layer would block contact to the atmosphere and prevent electric charge from transferring to the solution. Thus, it would not have been obvious to one of ordinary skill in the art to combine the methods of Rapp with the methods of McCaffrey.

In the Amendment dated April 23, 2009, Applicants pointed out that it would not have been obvious to one of ordinary skill in the art to combine the teachings of Rapp and McCaffrey. However, the Office Action did not consider this argument. Applicants request consideration of this argument.

Regarding the limitation of "shutting an opening part of the reaction vessel," the Office Action takes the position that this feature is well known in the art. (Office Action, page 4.) It may be well known to shut an opening part of the reaction vessel to avoid contamination of dust, when the reaction vessel having some material is stored. However, Applicants respectfully submit that it is not well known in the art to shut an open part of the reaction vessel when the luminescence is measured, and the Office Action has not provided any evidence to demonstrate that this feature is well known.

The Office Action states that the Office does not have an obligation to provide evidence to demonstrate this feature. (Office Action, page 5.) However, Applicants respectfully submit that since Applicants have traversed the Examiner's assertion of Official Notice, the Examiner must provide documentary evidence to support the assertion of Official Notice. The MPEP at section 2144.03(C) states that

If applicant adequately traverses the examiner's assertion of official notice, the examiner must provide documentary evidence in the next Office action if the rejection is to be maintained.

In the previous response, Applicants pointed out that it is not well known in the art to shut an open part of the reaction vessel when the luminescence is measured. Thus, contrary to the Examiner's statement that there is no obligation to provide evidence, the Examiner is required to provide documentary evidence to support the assertion of Official Notice.

For at least the foregoing reasons, claims 1, 4, 5, 7, 16, 17 and 20 are patentable over the cited references. Accordingly, withdrawal of the rejection of claims 1, 4, 5, 7, 16, 17 and 20 is hereby solicited.

Amendment under 37 C.F.R. §1.114
Attorney Docket No. 053362
Application No. 10/561,538

In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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